Search History for 10/694,779

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     (FILE 'HOME' ENTERED AT 14:23:31 ON 08 JAN 2007)

     FILE 'REGISTRY' ENTERED AT 14:24:11 ON 08 JAN 2007
               E "AMMONIAGENES"/CN 25
               E "F0F1-ATPASE"/CN 25

     FILE 'MEDLINE, AGRICOLA, CAPLUS, BIOSIS, EMBASE, WPIDS' ENTERED AT
     14:25:07 ON 08 JAN 2007
L1             4 S AMMONIAGENES AND ATPASE
L2             3 DUP REM L1 (1 DUPLICATE REMOVED)

     FILE 'STNGUIDE' ENTERED AT 14:26:38 ON 08 JAN 2007
L3             0 S AMMONIAGENES AND "PROTON PUMP"

     FILE 'MEDLINE, AGRICOLA, CAPLUS, BIOSIS, EMBASE, WPIDS' ENTERED AT
     14:49:42 ON 08 JAN 2007
L4             0 S AMMONIAGENES AND "PROTON PUMP"
L5          1954 S AMMONIAGENES
L6             2 S L5 AND F0F1?
L7             2 DUP REM L6 (0 DUPLICATES REMOVED)

     FILE 'STNGUIDE' ENTERED AT 14:50:45 ON 08 JAN 2007
L8             0 S L5 AND FOF1?

     FILE 'REGISTRY' ENTERED AT 14:57:09 ON 08 JAN 2007
               E "ATP SYNTHASE"/CN 25
L9             1 S E3

     FILE 'MEDLINE, AGRICOLA, CAPLUS, BIOSIS, EMBASE, WPIDS' ENTERED AT
     15:00:08 ON 08 JAN 2007
L10        10673 S L9
L11            0 S L5 AND L10
L12            0 S L5 AND 3.6.3.14

=> log h
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Search	Most Recent Queries	Time	Result
#23	Search **#22 AND (coryenbacterium OR coryneform OR ammoniagenes)**	14:57:09	0
#22	Search **"Proton-Translocating ATPases"[MeSH]**	14:56:43	8984
#19	Search **#12 AND corynebacterium**	14:14:52	14
#18	Search **#12 AND coryneform**	14:14:45	0
#17	Search **#12 AND ammoniagenes**	14:14:37	0
#16	Search **#15 AND ammoniagenes**	14:14:23	0
#15	**Related Articles** for **PubMed** (Select **6241036**)	14:14:11	232
#14	Search **#13 AND 1984**	14:14:05	81
#13	Search **#12 AND coli**	14:11:47	2099
#12	Search **"Proton Pumps"[MeSH]**	14:11:35	31149
#10	Search **ammoniagenes and genomic**	14:07:15	15
#9	Search **ammoniagenes**	14:06:42	142
#8	Search **"Actinomycetales"[MeSH]**	14:05:33	88269
#2	Search **"Glucokinase"[MeSH]**	09:04:27	1987
#3	Search **#2 AND crystal**	09:04:26	12

IUBMB Enzyme Nomenclature

EC 3.6.3.14

Accepted name: H^+-transporting two-sector ATPase

Reaction: $ATP + H_2O + H^+_{in} = ADP + phosphate + H^+_{out}$

Glossary: F_o the "o" refers to oligomycin. F_0 is incorrect.

Other names: ATP synthase; F_1-ATPase; F_oF_1-ATPase; H^+-transporting ATPase; mitochondrial ATPase; coupling factors (F_0, F_1 and CF_1); chloroplast ATPase; bacterial Ca^{2+}/Mg^{2+} ATPase

Systematic name: ATP phosphohydrolase (H^+-transporting)

Comments: A multisubunit non-phosphorylated ATPase that is involved in the transport of ions. Large enzymes of mitochondria, chloroplasts and bacteria with a membrane sector (F_o, V_o, A_o) and a cytoplasmic-compartment sector (F_1, V_1, A_1). The F-type enzymes of the inner mitochondrial and thylakoid membranes act as ATP synthases. All of the enzymes included here operate in a rotational mode, where the extramembrane sector (containing 3 α- and 3 β-subunits) is connected via the δ-subunit to the membrane sector by several smaller subunits. Within this complex, the γ- and ϵ-subunits, as well as the 9-12 *c* subunits rotate by consecutive 120° angles and perform parts of ATP synthesis. This movement is driven by the H^+ electrochemical potential gradient. The V-type (in vacuoles and clathrin-coated vesicles) and A-type (archebacterial) enzymes have a similar structure but, under physiological conditions, they pump H^+ rather than synthesize ATP.

Links to other databases: BRENDA, EXPASY, KEGG, ERGO, PDB, CAS registry number:

References:

1. Boyer, P.D. The binding change mechanism for ATP synthase - some probabilities and possibilities. *Biochim. Biophys. Acta* 1140 (1993) 215-250. [Medline UI: 93112640]

2. Abrahams, J.P., Leslie, A.G.W., Lutter, R. and Walker, J.F. Structure at 2.8 Å resolution of F_1-ATPase from bovine heart mitochondria. *Nature* 375 (1994) 621-628. [Medline UI: 94344236]

3. Blair, A., Ngo, L., Park, J., Paulsen, I.T. and Saier, M.H., Jr. Phylogenetic analyses of the homologous transmembrane channel-forming proteins of the F_oF_1-ATPases of bacteria, chloroplasts and mitochondria. *Microbiology* 142 (1996) 17-32. [Medline UI: 96146047]

4. Noji, H., Yasuda, R., Yoshida, M. and Kinosita, K., Jr. Direct observation of the rotation of F_1-ATPase. *Nature* 386 (1997) 299-302. [Medline UI: 97222141]

[EC 3.6.3.14 created 1984 as EC 3.6.1.34, transferred 2000 to EC 3.6.3.14]

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1: Proton-Translocating ATPases

Multisubunit enzymes that reversibly synthesize ADENOSINE TRIPHOSPH They are coupled to the transport of protons across a membrane.
Year introduced: 2002(1983)

Subheadings: This list includes those paired at least once with this heading ir MEDLINE and may not reflect current rules for allowable combinations.

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Registry Number: EC 3.6.3.14

Entry Terms:

- H(+)-ATPase
- H+-Translocating ATPase
- ATPase, H+-Translocating
- H+ Translocating ATPase
- Proton-Translocating ATPase
- ATPase, Proton-Translocating
- Proton Translocating ATPase
- H(+)ATPase Complex
- ATPase, F(1)F(0)
- ATPase, F0F1

- F(0)F(1)-ATP Synthase
- ATPase, H(+)
- Proton-Translocating ATPase Complexes
- ATPase Complexes, Proton-Translocating
- Complexes, Proton-Translocating ATPase
- Proton Translocating ATPase Complexes
- H(+)-Transporting ATPase
- F1F0 ATPase Complex
- ATP Dependent Proton Translocase
- H+ ATPase
- ATPase, H+
- F0F1 ATPase
- F(1)F(0)-ATPase
- Proton-Translocating ATPase Complex
- ATPase Complex, Proton-Translocating
- Proton Translocating ATPase Complex
- H+ Transporting ATP Synthase
- H(+)-Transporting ATP Synthase
- Adenosine Triphosphatase Complex
- Complex, Adenosine Triphosphatase
- Triphosphatase Complex, Adenosine
- Proton-Translocating ATPase, F1 Sector
- Proton Translocating ATPase, F1 Sector
- F1-ATPase
- ATPase, F1
- F1 ATPase
- Adenosinetriphosphatase F1
- F-1-ATPase
- F 1 ATPase
- H(+)-Transporting ATP Synthase, Acyl-Phosphate-Linked
- Proton-Translocating ATPase, F0 Sector
- Proton Translocating ATPase, F0 Sector
- ATPase, F0
- F0 ATPase
- F-0-ATPase
- F 0 ATPase

Previous Indexing:

- Adenosine Triphosphatase (1966-1982)

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Thank you very much.

David J. Steadman, Ph.D.
Primary Examiner
Art Unit 1656
Protein Crystallography and Recombinant Enzymes
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Mailbox: Remsen 3C70
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